

A. Nucleic acid encoding human Cloaked-2 polypeptide with signal peptide (SEQ ID NO:1)

1 TACTGGAAGGTGGCGTGCCCTCCTCTGGCTGGTACC**ATG**CAGCTCCCACT
51 GGCCCTGTGTCTCGTCTGCCTGCTGGTACACACAGCCTTCCGTGTAGTGG
101 AGGGCCAGGGGTGGCAGCGGCTCAAGAATGATGCCACGGAAATCATCCCC
151 GAGCTCGGAGGTACCCCGAGGCTCCACCGGAGCTGGAGAACCAACAGAC
201 CATGAACCGGGCGGAGAACGGAGGGCGCGCTCCCCACCACCCCTTGTAGA
251 CCAAAGCAGTGTCCGAGTACAGCTGCCGCGAGCTGCACTTCACCCGCTAC
301 GTGACCGATGGGCGGTCGCGCAGCGCCAAAGCCGGTACCGAGCTGGTGTG
351 CTCGGCCAGTGCGGCGCCGGCGCGCTGCTGCCAACGCCATCGGCCGCG
401 GCAAGTGGTGGCGACCTAGTGGGCCGACTTCGGCTGCATCCCCGACCGC
451 TACCGCGCGCAGCGCGCTGCAGTGCCTGTGTCCCGGTGGTGAGGCGCCGCG
501 CGCGCGCAAGGTGCGCTCGGTGGCTCGTGCAAGTGCAAGCGGCTCACCC
551 GCTTCCACAACCAAGTCCGAGCTCAAGGACTTGGGACCGAGGCCGCTCGG
601 CCGCAGAAGGGCCGGAAGCCGCGGCCCCGCGCCCGAGCGCCAAAGCCAA
651 CCAGGCGGAGCTGGAGAACGCCTAC**TAG**AGCCCCGCCGCGCCCTCCCCA
701 CCAGCGGGCGCCCCGGCCCTGAACCCGCGCCCCACATTCTGTCTCTGC
751 GCGTGGTTT

1 QGWQAFKNDAT E I I PELGEYPEPPPELENNKTMNRAENGGRPPHPHFETK
51 DVSEYS**C**RELHFTRYVTDGP**C**RSAPVTEL**V**CSGQC~~GP~~ARLLPNAIGRGK
101 WWRPSGPDFR**C**I PDRYRAQRVQL**L****C**PGGEAPRARKVRLVAS**C**K**C**KRLTRF
151 HNQSELKDFGTEAARPQKGRKPRPRARSAKANQAELENAY

1 MQLPLALCLVCLLVHTAFRVVEGQGWQAFKNDAT E I I P E L G E Y P E P P P E L
51 ENNKTMNRAENGGRPPHPFETKDVSEYSCRELHFTRYVTDGPCRSAKPV
101 TELVCSGQCGRLLPNAIGRGKWWRPSPGDFRCIPDRYRAQRVQLLCPG
151 GEAPRARKVRLVASCKCKRLTRFHNQSELKDFGTEAAPQKGRKPRPRAR
201 SAKANOAELENAY

Figure 2A. Nucleic acid encoding mouse Cloaked-2 polypeptide with signal peptide (SEQ ID NO:3)

1 **ATG**CAGCCCTCACTAGCCCCGTCCTCATCTGCCTACTTGTGCACGCTGC
 51 CTTCTGTGCTGTGGAGGGCCAGGGGTGGCAAGCCTTCAGGAATGATGCCA
 101 CAGAGGTCATCCCAGGGCTTGGAGAGTACCCCGAGCCTCCTCCTGAGAAC
 151 AACCAGACCATGAACCGGGCGGAGAATGGAGGCAGACCTCCCCACCATCC
 201 CTATGACGCCAAAGATGTGTCCGAGTACAGCTGCCGCGAGCTGCACTACA
 251 CCCGCTTCCTGACAGACGGCCCATGCCGCAGCGCCAAGCCGGTCACCGAG
 301 TTGGTGTGCTCCGGCCAGTGCGGCCCCGCGCGGCTGCTGCCCAACGCCAT
 351 CGGGCGCGTGAAGTGGTGGCGCCCGAACGGACCGGATTTCGCTGCATCC
 401 CGGATCGCTACCGCGCGCAGCGGGTGCAGCTGCTGTGCCCCGGGGGCGCG
 451 GCGCCGCGCTCGCGCAAGGTGCGTCTGGTGGCCTCGTGCAAGTGCAAGCG
 501 CCTCACCCGCTTCCACAACCAAGTCCGAGCTCAAGGACTTCGGGCCGGAGA
 551 CCGCGCGGCCGCGAGAAGGGTCGCAAGCGCGGGGGGGGGCGCGCGGGGAGCC
 601 AAAGCCAACCAGGCGGAGCTGGAGAACGCCTAC**TAG**

B. Mouse Cloaked-2 polypeptide most likely mature form (SEQ ID NO:4)

1 QGWQAFRNDATEVIPGLGEYPEPPPENQTMNRAENGGRPPHHPYDAKDV
 51 SEYSCRELHYTRFLTDGPCRSAPVTELVCSGQCGPARLLPNAIGRVKWW
 101 RPNGPDFRCIPDRYRAQRVQLLCPGGAAPRSRKVRLVASCKCKRLTRFHN
 151 QSELKDFGPETARPQKGRKPRPGARGAKANQAELENAY

C. Mouse Cloaked-2 polypeptide with signal peptide (SEQ ID NO:6)

1 MQPSLAPCLICLLVHAAFCAVEGQGWQAFRNDATEVIPGLGEYPEPPPEN
 51 NQTMNRAENGGRPPHHPYDAKDVSEYSCRELHYTRFLTDGPCRSAPVTE
 101 LVCSGQCGPARLLPNAIGRVKWWRPNGPDFRCIPDRYRAQRVQLLCPGGA
 151 APRSRKVRLVASCKCKRLTRFHNQSELKDFGPETARPQKGRKPRPGARGA
 201 KANQAELENAY

T06250-1223550

Figure 3

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GAP of: Human Cloaked-2 check: 5775 from: 1 to: 213
      to: Mouse Cloaked-2 check: 9489 from: 1 to: 211
```

Symbol comparison table:
/GCGDISK/gcg10/gcgcore/data/rundata/blosum62.cmp
CompCheck: 6430

Gap Weight:	8	Average Match:	2.912
Length Weight:	2	Average Mismatch:	-2.003

```

Quality:      1028      Length:      213
Ratio:        4.872     Gaps:         1
Percent Similarity: 91.469  Percent Identity: 88.152

```

Match display thresholds for the alignment(s):

IDENTITY

$$: = 2$$
$$\cdot = 1$$

Human Cloaked-2 (SEQ ID NO: 5) x

Mouse Cloaked-2 (SEQ ID NO: 6)

```

1  MQLPLALCLVCLLVHTAFRVVEGQGWAQAFKNDATEIIPELGEYPEPPPEL  50
  ||  ||  ||:|||||  ||  |||||:||||:|  |||||
1  MQPSLAPCLICLLVHAAFCAVEGQGWAQAFRNDATEVIPGLGEYPEPPP..  48

51  ENNKTMNRAENGGRPPHHPFETKDVSEYSCRELHFTRYVTDGPCRSAPKV  100
  |||.|||||:|  |||||:|.|||||
49  ENNQTMNRAENGGRPPHHPYDAKDVSEYSCRELHYTRFLTDGPCRSAPKV  98

101  TELVCSGQCGPARLLPNAIGRGKWWRPSGPDFRCIPDRYRAQRVQLLCPG  150
  |||||:|||||.|||||
99  TELVCSGQCGPARLLPNAIGRVKWWRPNGPDFRCIPDRYRAQRVQLLCPG  148

151  GEAPRARKVRLVASCKCKRLTRFHNQSELKDFGTEAARPQKGRKPRPRAR  200
  |||.|||||:|||||
149  GAAPRSRKVRLVASCKCKRLTRFHNQSELKDFGPETARPQKGRKPRPGAR  198

201  SAKANQAELENAY  213
  |||||
199  GAKANQAELENAY  211

```

Figure 4

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GAP of: Human Cloaked-1  check: 1888  from: 1  to: 183
      to: Human Cloaked-2  check: 185   from: 1  to: 190
```

Symbol comparison table:
/GCGDISK/gcg10/gcgcore/data/rundata/blosum62.cmp
CompCheck: 6430

Gap Weight:	8	Average Match:	2.912
Length Weight:	2	Average Mismatch:	-2.003

Quality:	335	Length:	196
Ratio:	1.831	Gaps:	6
Percent Similarity:	52.542	Percent Identity:	42.938

Match display thresholds for the alignment(s):

```

| = IDENTITY
: = 2
. = 1

```

$$\frac{\text{Human Cloaked-1 (SEQ ID NO: 25)}}{\text{Human Cloaked-2 (SEQ ID NO: 2)}}$$

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1  ....FKNDATEILYSHVVKP.VPAHPSSNSTLNQARNGRHFSTGLDR 44
   |||||: | | .| |:|. ||| . :
1  QGWQAFKNDATEIIPELGEYPEPPPELENNKTMNRAENGGRP.PHHPFET 49
   .
45 NTRVQVGCRELRSTKYISDGOCTSI SPLKELVCAGECLPLPVLPNWIGGG 94
   : ||| |:|:|. || | | . ||| |. |:| | . ||| || |
50 KDVSEYSCRELHFTRYVTDGPCRSAPVTELVCSGQCGPARLLPNAIGRG 99
   .
95 YGTTYWSRRSSQEWRCVNDKTRTQRIQLQCGDG.STRTYKITVV TACKCK 143
   |:| | | :. |:| :| | |:| | | . | |: . | . |||
100 ...KWW.RPSGPDFRCIPDRYRAQRVQLLCPGGEAPRARKVRLVASCKCK 145
   .
144 RYTRQHNESSHN FESMSPAKPVQHHRRERKRASKSSKHSMS..... 183
   | || |:| :| :| :| :| :|. | .
146 RLTRFHNQSELKDFGTEAARPQKGRKPRPRA.RSAKANQAELENAY 190

```